## **AMENDMENTS TO THE ABSTRACT:**

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Please amend the application to include the following Abstract:

## **ABSTRACT**

As shown in Fig. 1, a position detector (10) includes: an object to be detected having a pattern (2) formed for generating a position signal; and a sensor (3) for detecting the position signal according to the pattern (2) by receiving an electromagnetic wave generated on the object (1) by light irradiation. The pattern (2) is formed in a gradation shape visibly or invisibly so that an electromagnetic wave having a wavelength continuously different depending on the position on the object (1) can be sent to the sensor (3). This enables detection of an absolute angle of a rotary object and an absolute position on an XY plane with a simpler configuration, simplifies the device assembly, and reduces the device size.